This study was aimed to determine the effect of supplementation of Se organic and vitamin E in commercial diets on consumption, egg production, fertility, hatchability and progeny performances. The treatments were supplementation of Se organic (S1 = 0.5 ppm and S2 = 1 ppm) and vitamin E (E1 = 50 ppm dan E2 = 100 ppm) in different commercial diets (P and G). Four hundred twenty female and male quails (ratio 1 : 1) aged 3 weeks old were divided into 10 treatment groups with 3 replicates. Each replicate consisted of 14 quails. Two groups as control consisted of two kinds of commercial diets (P and G) without supplementation of Se organic and vitamin E. The eight remaining groups were the groups given the combinations of Se organic and vitamin E at different levels in P and G diets. The results showed that the level of Se organic and vitamin E at 0.5 ppm Se and 100 ppm vitamin E in the two commercial diets significantly (p<0.05) improved the egg production as compared to the control groups. Meanwhile, all the treatments increased the Se and vitamin E content in egg and blood and increased the GSH-Px activities in blood and liver. The Supplementation of Se organic and vitamin E at 1 ppm Se and 100 vitamin E in the two commercial diets significantly (p<0.05) improved fertility, hatchability, hatched weight, mortality, body weight gain and feed conversion of progeny. From this study it was concluded that the supplementations of Se organic and vitamin E in the diets improved reproduction of the quails which were reflected on fertility, hatchability, hatched weight and decreased the mortality number of the progeny. The supplementations of Se organic and vitamin E in the diets improved egg quality, it showed with the bigger egg, higher Se and vitamin E content in the egg.

Key words: Organic selenium, vitamin E, reproduction, quails